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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/554,914	08/14/2000	JAN HEMMINGSSON	9847-0050-	5033
22850	7590	12/01/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			AGUIRRECHEA, JAYDI A	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/554,914

Applicant(s)

HEMMINGSSON, JAN

Examiner

Jaydi A. Aguirrechea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-21 and 24-35 is/are rejected.
- 7) ☐ Claim(s) 22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Decision on Petition

## **DETAILED ACTION**

### ***Suspension of Prosecution***

1. Pursuant to the Board of Appeal's final decision regarding U.S. Application No. 08/973,019, suspension has been lifted. As set forth in the decision on petition requesting suspension, the instant application was granted a suspension pending the decision on appeal of the '019 application. On November 27, 2002, the Board affirmed the rejection of the '019 application and on August 27, 2003, the Board denied applicant's request for reconsideration, thus terminating prosecution of the '019 application. An action on the merits follows.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 18-20, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipo et al. (U. S. Pat. 5,376,851) in view of Nikitin et al. (U. S. Pat. 4,429,244).

Lipo et al. substantially teaches the claimed invention except that it does not show that the electric winding have an electric conductor configured to hold a high voltage. Lipo et al. do not disclose that at least one of the plurality of slots have a constant width in the transverse direction.

Nikitin et al. disclose that the electric winding have an electric conductor configured to hold a high voltage (column 3, that at lines 34-36). Nikitin et al. disclose at least one of the plurality of slots have a constant width in the transverse direction.

The invention of Nikitin et al. has the purpose of raising the voltage across the stator winding. It would have been obvious at the time the invention was made to modify the electric

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machine of Lipo et al. and provide it with the electric winding and slot configuration disclosed by Nikitin et al. for the purpose of raising the voltage across the stator winding.

4. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipo et al. in view of Nikitin et al. as applied to claims 18 and 21 above, and further in view of G. F. Redfern (GB 468,827).

Lipo et al. and Nikitin et al. substantially teach the claimed invention except that it does not show that at least one of the pluralities of slots is at least partially curved in the transverse direction. Neither Lipo et al. nor Nikitin et al. disclose that each of the plurality of slots has the same radius of curvature. Neither disclose that at least one of the plurality of slots have alternating larger width portions and have a varying width. Neither discloses that the alternating larger width portions have a mutually similar width.

G. F. Redfern discloses that at least one of the pluralities of slots is at least partially curved in the transverse direction. G. F. Redfern discloses that each of the plurality is curved along the transverse direction, and that each of the plurality of slots have the same radius of curvature.

G. F. Redfern discloses that at least one of slots have alternating larger width portions and alternating smaller width portions in the transverse direction. G. F. Redfern discloses that at least one of the alternating larger width portions have a varying width. G. F. Redfern discloses that the alternating larger width portions have a mutually similar width. G. F. Redfern's invention has the purpose of giving the machine a suitable leakage value.

It would have been obvious at the time the invention was made to modify the electric machine of Lipo et al. and Nikitin et al. configuration disclosed by G. F. Redfern for the purpose of giving the machine a suitable leakage value.

5. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipo et al. in view of Nikitin et al. rejected under 35 U.S.C. 103(a) as et al. as applied to claim 18 above, and further in view of Elton et al. (U. S. Pat. 5,036,165).

Lipo et al. and Nikitin et al. substantially teach the claimed invention except that it does not show that the at least one full winding turn of the electric conductor is flexible. Neither Lipo et al. nor Nikitin et al. disclose that the electric conductors have an inner semi conductor, an insulating layer surrounding the inner semi-conducting layer, nor conducting layer surrounding the electric conductor, nor an outer semi-conducting layer surrounding the insulating layer. Neither Lipo et al. nor Nikitin et al. disclose that each of the inner semi conducting layer and the outer semi-conducting layer constitutes an equipotential surface.

Elton et al. disclose that the at least one full winding turn of the electric conductor is flexible. Elton et al. disclose that the electric conductor (102) have an inner semi conducting layer (104) surrounding the electric conductor (102), an insulating layer (106) surrounding the inner semi conducting layer (144), and an outer semi conducting layer (110) surrounding the insulating layer (106). Elton et al. disclose that each of the inner semi conducting layer (104) and the outer semi-conducting layer (110) constitutes an equipotential surface. The invention of Elton et al. has the purpose of avoiding the development of a corona discharge when an electrical potential exists between the conductor and the region adjacent to the exterior surface of the insulator.

It would have been obvious at the time the invention was made to modify the electric machine of Lipo et al. and Nikitin et al. and provide it with the electric conductor configuration disclosed by Elton et al. for the purpose of avoiding the development of a corona discharge when

an electrical potential exists between the conductor and the region adjacent the exterior surface of the insulator.

It would have been obvious to one having ordinary skill in the art at the time to make the conductor capable of holding a voltage greater than 72kV since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F. 2d 454, 105 USPQ 233, 235 (CCPA 1955).

6. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipo et al. in view of Nikitin et al., and further of Elton et al. as applied to claim 32 above, and further in view of Penczynski et al. (U. S. Pat. 3,959,549).

The combination of Lipo et al., Nikitin et al., and Elton et al. substantially teaches the claimed invention except that it does not show that the inner semi conducting layer and the outer semi conducting layer have a substantially same coefficient of thermal conductivity as the insulating layer.

Penczynski et al. disclose that the inner semiconducting layer and the outer semiconducting layer (6, 20) have a substantially same coefficient of thermal conductivity as the insulating layers (column 4, lines 37-40). The invention of Penczynski et al. has the purpose of improving the mechanical elasticity of the insulation.

It would have been obvious at the time the invention was made to modify the machine of Lipo et al., Nikitin et al., and Elton et al. and provide it with the layers configuration disclosed by Penczynski et al. for the purpose of improving the mechanical elasticity of the insulation.

***Allowable Subject Matter***

7. Claims 22-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach either alone or in obvious combination an electrical machine further including at least one of the slots being at least partially curved in the transverse direction.

***Response to Arguments***

9. Applicant's arguments filed on July 8, 2002 have been fully considered but they are not persuasive.

In response to applicant's argument that claim 18 requires at least one pair of adjacently located winding parts in a same slot be displaced in a circumferential direction relative to each other, it is the Examiner's position that Lipo et al. discloses in figure 1 at least one pair of adjacently located winding parts in a same slot be displaced in a circumferential direction relative to each other.

In response to applicant's argument that Elton's conductor is not flexible, the Examiner disagrees. Elton's windings 50 "initially extend axially and then bend circumferentially so as to provide a connection between one bar and a second circumferentially disposed bar in the stator core" (column 5, line 67-column 6, line 4). The manner of bending is shown in Fig. 5. Thus, the adequate "flexibility" is provided by such a bend. In column 8, lines 3-9, Elton suggests that the semiconducting layer can be molded or blown onto a cable without causing cable rigidity.

*Conclusion*

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

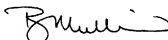
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaydi A. Aguirrechca whose telephone number is 703-305-2277. The examiner can normally be reached on M-Th 9-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
JAA  
10/21/03

  
BURTON S. MULLINS  
PRIMARY EXAMINER